

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0005] with the following amended paragraph:

[0005] An intermediate layer incorporated by most protocol stacks is the Link layer. The Link layer is typically a layer that is situated immediately above the physical layer in a protocol stack. The Link layer decodes data packets (received from higher layers) into bit streams for use by the physical layer and encodes bit ~~streams~~ streams (received from the physical layer) into data packets for use by higher layers. One particular standard for implementing a physical layer and corresponding link layer is the Institute of Electrical and Electronics Engineers ("IEEE") 1394 external bus standard (often referred to as "FireWire"). IEEE 1394 can be used to couple consumer electronic devices, such as, for example, digital video camera, set-top boxes, etc., and computer systems (hereinafter collectively referred to as "1394 devices") to one another to facilitate the exchange of electronic data. Networks based on the IEEE 1394 standard have relatively high data transfer rates (up to 800 Megabits per second) and can ~~deliver~~ deliver data isochronously. These characteristics make IEEE 1394 well suited for delivering real-time audio/video data that require synchronization between audio and video channels.

Please replace paragraph [0006] with the following amended paragraph:

[0006] Many 1394 devices can also be configured to transition into a low power mode (or sleep mode) to conserve power resources. Transitioning into low power mode can occur after a specified time period of inactivity or as the result of ~~the device~~ receiving an appropriate command. When a 1394 device is operating in low power mode, the physical layer at the 1394 device may exchange timing data (e.g., electrical signaling) with physical layers at other 1394 devices connected to a common network. However, when operating in low power mode the link layer is essentially inactive and the physical layer does not exchange data with the link layer. When a packet is received, the 1394 device checks the packet to determine whether the packet is a physical layer packet (often referred to as a "PHY packet") or a primary packet (a packet containing data for upper layers of a corresponding protocol stack). However, aside from determining whether a packet is a PHY packet or a primary packet, the physical layer typically includes little, if any, ability to parse data contained in a received packet.

Please replace paragraph [0008] with the following amended paragraph:

[0008] A 1394 device can transition out of a low power mode as a result of local input received at the 1394 device. For example, a user of a 1394 VCR device can operate the controls of the 1394 VCR device (e.g., pressing the play button) to transition the 1394 VCR device out of a low power mode. A 1394 device can also transition out of a low power mode in response to receiving a wake packet. A wake packet is a special PHY packet that indicates to the physical layer that the physical layer should activate the link layer. When the ~~[[physically]]~~ physical layer receives a wake packet, the physical layer wakes the link layer (e.g., asserting a LINK_ON signal to the link layer and a PME# signal to PCI Bus), from the low power state.

Please replace paragraph [0010] with the following amended paragraph:

[0010] The foregoing problems with the prior state of the art are overcome by the principles of the present invention, which are directed towards, methods, systems, and computer program products for waking a link layer based on data contained in a network packet. A receiving computer system or receiving consumer electronics device (hereinafter collectively referred to as a "receiving computer ~~[[system]]~~ system") and a sending computer system or sending consumer electronics device (hereinafter collectively referred to as a "sending computer system") are connected to a common network, such as, for example, an Institute of Electrical and Electronics Engineers ("IEEE") 1394 network. A physical layer at the receiving computer system receives a network packet from the sending computer system. The physical layer parses a plurality of bytes (e.g., in increments of four bytes or "quadlets") of packet data contained in the received network packet. For example, the physical layer can parse a portion of a received primary packet that includes a transaction code and/or a destination offset.

Please replace paragraph [0023] with the following amended paragraph:

[0023] Computer system is further defined to include electronic logic state machines. Electronic logic state machines can be implemented in integrated circuits embedded in pieces of semi conducting material (e.g., silicon), which ~~[[maybe]]~~ may be referred to as "chips". Electronic logic state machines can be implemented, for example, utilizing very large-scale integration ("VLSI") and/or application specific integrated circuits ("ASICs"). A chip including a processor and corresponding instruction set can be viewed as an electronic logic state machine.

Please replace paragraph [0029] with the following amended paragraph:

[0029] Within computer system architecture 100, computer system 116 is connected to computer system 103 and computer system 107 by corresponding links 104 and 106 respectively. Each of computer systems 116, 103, and 107 can be a consumer electronics device or an electronic logic state machine. Arrows 102 and 108 illustrate that computer system 103 and computer system 107 can each be connected to additional other computer systems (not shown). Accordingly, it may be that computer systems 103, ~~[[108]]~~ 107 and 116 are connected to a common network along with one or more additional other computer systems. Links 104 and 106 (as well as links to other additional computer systems) can be a portion of a system bus, a portion of a local area network ("LAN"), and/or a portion of a Wide Area Network ("WAN"). In some embodiments, links connecting the computer systems depicted in computer system architecture 100 are links of an Electrical and Electronics Engineers ("IEEE") 1394 network (which hereinafter may be referred to as an "IEEE 1394 network").

Please replace paragraph [0033] with the following amended paragraph:

[0033] However, it may also be that network packet 109 is a primary packet including packet data that is to be processed at layers above physical layer 122. In response to receiving a primary packet, physical layer 122 can determine if link layer 123 is in a reduced power mode. When link layer 123 is not in a reduced power mode, physical layer 122 can transfer packet data 111 to link layer 123. When link layer 123 is in a reduced power mode, such as, for example, a sleep mode, physical layer 122 can determine, based at least ~~[[a]]~~ on a portion of packet data 111, if link layer 123 is to be transitioned out of the reduced power mode. Physical layer 122 can assert a Link On signal when it is determined that link layer 123 is to transition out of a reduced power mode.

Please replace paragraph [0040] with the following amended paragraph:

[0040] Method 200 includes an act of comparing at least a portion of the packet data to rule data (act 203). Act 203 can include a receiving computer system comparing at least a portion of the packet data to rule data. For example, computer system 116 can compare a parsed packet data 112 to rule data 137. A bit mask stored in mask register 132 can be applied to parsed packet data 112 ~~[[o]]~~ to mask specified portions of parsed packet data 112. For example, bit mask 133 can

be applied to parsed packet data 112 to mask specified portions of parsed packet data 112 that are of interest.

Please replace paragraph [0042] with the following amended paragraph:

[0042] Method 200 includes an act of determining if the physical layer is to assert a Link On signal based on results of the comparison ~~[[act 304]]~~ (act 204). Act ~~[[304]]~~ 204 can include a receiving computer system determining if a corresponding physical layer is to assert a Link On signal based on results of the comparison. For example, computer system 116 can determine if physical layer 122 is to assert a Link On signal onto link 141 based on results 138. When results 138 indicate that masked packet data 134 does not satisfy rule data ~~[[138]]~~ 137 (e.g., masked packet data 134 and rule data ~~[[138]]~~ 137 do not match), computer system 116 determines that physical layer 122 is not to assert a Link On signal. On the other hand, when results 138 indicate that masked packet data 134 satisfies rule data ~~[[138]]~~ 137 (e.g., masked packet data 134 and rule data ~~[[138]]~~ 137 match), computer system 116 can determine that physical layer 122 is to assert a Link On signal.

Please replace paragraph [0046] with the following amended paragraph:

[0046] The computer system 320 may also include a magnetic hard disk drive 327 for reading from and writing to a magnetic hard disk 339, a magnetic disk drive 328 for reading from or writing to a removable magnetic disk 329, and an optical disk drive 330 for reading from or writing to removable optical disk 331, such as, ~~[[or]]~~ for example, a CD-ROM or other optical media. The magnetic hard disk drive 327, magnetic disk drive 328, and optical disk drive ~~[[530]]~~ 330 are connected to the system bus 323 by hard disk drive interface ~~[[352]]~~ 332, magnetic disk drive-interface 333, and optical drive interface 334, respectively. The drives and their associated computer-readable media provide nonvolatile storage of computer-executable instructions, data structures, program modules, and other data for computer system 320. Although the example environment described herein employs a magnetic hard disk 339, a removable magnetic disk 329 and a removable optical disk 331, other types of computer readable media for storing data can be used, including magnetic cassettes, flash memory cards, digital versatile disks, Bernoulli cartridges, RAMs, ROMs, and the like.